

REMARKS/ARGUMENTS

No claims are amended, canceled, or added. Claims 22-57 remain pending in the application, although claims 41-46 and 48-54 are withdrawn as directed to non-elected species. Applicant respectfully requests reexamination and reconsideration of the application.

Initially, Applicants acknowledge with appreciation the Examiner's indication that claims 23, 24, 40, 47 and 55-57 contain allowable subject matter. As discussed below, Applicants believe that all of the claims contain allowable subject matter and are in condition for allowance.

Claims 22 and 25-39 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Farnworth (US 6,238,942) in view of Cobbley et al. (US 6,329,832). Applicants respectfully traverse this rejection.

First, even if combined as proposed by the Office, the combination of Farnworth and Cobbley would not meet all of the requirements of claim 22, which includes "testing *said . . . assembled module* at a selected one of said operating speeds." The Office acknowledged that Farnworth does not teach the foregoing feature of claim 22. To make up for this acknowledged deficiency in Farnworth, the Office cited Cobbley's teaching of "speed grading *the dice 28*." Cobbley does not, however, teach what claim 22 requires. Claim 22 requires testing the assembled module—not just the individual dies of the module. At best, Cobbley teaches nothing more than speed grading the individual dies 28. That is, at best, Cobbley teaches speed grading each die 28 individually, and the "subsequent speed sorting" (col. 3, line 8) and "early and convenient speed grading of the . . . assemblies" (col. 3, lines 65-67) in Cobbley refer to rating the assembly 32 (which the Office equated with the module of claim 22) as a whole with a speed rating equal to the slowest die 28—not to any testing of the assembly 32 as a whole. In fact, the only "testing" of the assembly 32 as a whole referred to in Cobbley involves not speed rating assembly 32 as a whole but only "checking for open connections that should be closed, and vice versa." The only mention of "other testing" that involves speed rating expressly refers to "speed grading the dice 28"—not the assembly 32. (See Cobbley col. 3, lines 1-10.)

Thus, at best, the only testing performed in Cobbley that involves speed grading is performed on each die 28 individually but is not performed on the assembly 32 as a whole, as would be required to meet the requirements of claim 22. Therefore, even if Farnworth and Cobbly were combined as proposed by the Office, the combination would not meet the recitation in claim 22 of "testing *said . . . assembled module* at a selected one of said operating speeds."

Claim 22 is thus patentable over Farnworth and Cobbley because those references, even if combined, do not teach or suggest "testing *said . . . assembled module* at a selected one of said operating speeds." This fact in and of itself is sufficient reason to allow claim 22. So that the Examiner does not think the foregoing a mere trivial—and therefore an obvious—difference, Applicants provide the following discussion of advantages and improvements the foregoing difference provides over the prior art, although Applicants recognize that claim 22 is not so limited—and indeed, Applicants do not intend claim 22 to be so limited.

As discussed above, the only actual testing performed in Cobbley that involves speed grading is performed on the individual dies 28. (Cobbley col. 3, lines 1-10.) Most likely, Cobbley then speed rates the entire assembly 32 not by testing the entire assembly 32 but merely by rating the entire assembly 32 to operate at the speed of the slowest die 28. Thus, using Cobbley's method, one cannot make an assembly 32 that operates at a selected or desired speed. Rather, the operating speed of an assembly 32 is entirely dependent on random selection of the dies 28 that form the assembly 32. No matter how fast most of the dies 28 can operate, the assembly 32 can be rated no faster than the one slowest die 28. Thus, for example, if one die 28 in Cobbley can operate at a speed of X and all of the other dies can operate at a speed of 2X, the assembly is rated to operate at a speed of X even though all but one of the dies can operate twice as fast.

In contrast, using the method of claim 22, one is better able to make a module at a selected or desired operating speed. This is because, in claim 22, the assembled module is tested at a selected operating speed. If one or more of the dies of the module cannot operate at the selected speed, that die or those dies can cause the module to fail the testing, and that die or those dies can then be replaced. Thus, using the same example as above in which one die can operate at a speed of X and the other dies can operate at a speed of 2X, using the method of claim 22, the module as a whole can be tested at a speed of 2X. The one die capable of operating only at a speed of X can cause the module to fail the testing. Using the method of claim 22, that die can be replaced and the module retested at speed 2X. Such a process can continue until the module is populated entirely with dies capable of operating at speed 2X. Thus, in contrast to Cobbley's method, using the method of claim 22, one can make a module that operates at a desired speed.

Second, there is insufficient motivation to combine Farnworth and Cobbley. The combination proposed by the Office is therefore necessarily based on forbidden hindsight

reconstruction using Applicants' specification as a guide. For this additional reason, claim 22 is patentable over Farnworth and Cobbley.

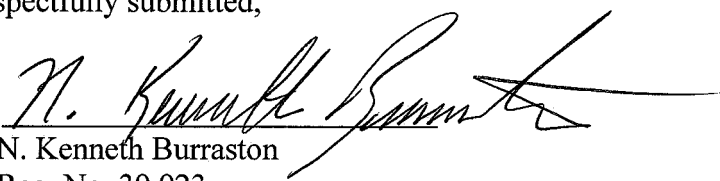
The other pending claims depend from claim 22 and are therefore patentable at least because of their dependency from claim 22.

In view of the foregoing, Applicant submits that all of the claims are allowable and the application is in condition for allowance. If the Examiner believes that a discussion with Applicant's attorney would be helpful, the Examiner is invited to contact the undersigned at (801) 323-5934.

Respectfully submitted,

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By


N. Kenneth Burraston
Reg. No. 39,923

Kirton & McConkie
1800 Eagle Gate Tower
60 East South Temple
P.O. Box 45120
Salt Lake City, Utah 84111-1004
Telephone: (801) 323-5934
Fax: (801) 321-4893